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The Bottom Line on Climate Change:

A Manitoba Business Guide

Climate Change Connection

Canada

Manitoba Hydro

Manitoba

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Climate Change Connection
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Partners in this guide

Manitoba Chamber of Commerce

The Manitoba Chambers of Commerce (MCC) is the umbrella organization for Manitoba's Chamber movement. With a membership comprised of direct corporate members as well as locals chambers, the MCC represents 72 communities and over 10,000 businesses across Manitoba. As such it is the largest business lobby in Manitoba.

The MCC is also unique in that it is the only business lobby in Manitoba that does not restrict its mandate to a particular area within Manitoba, a particular size of business, or a particular sector of business. The MCC prides itself on three things; being apolitical, the quality of its work, and its ability to reflect the composition of Manitoba's business community.

Climate Change Connection

Climate Change Connection aims to build awareness and to empower Manitobans to take action and reduce their greenhouse gas emissions - both individually and as a community. GHG emission reductions achieved by Manitobans will help Canada meet targets established by the Kyoto Protocol.

Climate Change Connection will work to assist Manitobans make the changes necessary to live more sustainable and climate-friendly lifestyles. Working to reduce GHG emissions enables us to take responsibility for our part in a changing global climate.

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The Bottom Line on Climate Change

Climate Change Connection

No matter how big or small, it's a good idea to consider how business operations contribute to climate change and conversely how climate change may impact your business. In the process, you may also discover opportunities to improve the bottom line.

TEN quick ideas to take action

1. **Drive less** – Plan and log business travel miles to eliminate or reduce travel miles. Encourage employees to walk, bike, take the bus, or car pool to work.

Assist employees by providing incentives, bathrooms/showers, flexible schedules, telecommuting, or a transit EcoPass.

Every litre of gasoline used by a vehicle produces 2.4 kilograms of CO_2.

2. **Never idle!** Idling is defined as anytime you keep your engine on while your vehicle is stationary.

Develop an idling policy to eliminate idling in company vehicles. Put up Idle Free Zone Signs. Educate employees.

Eliminate 10 minutes of idling a day and save $80 and 0.25 tonnes of GHGs a year.

3. **Reduce unnecessary vehicle emissions** – If you must use a vehicle, make sure to operate a well-maintained, fuel efficient vehicle. Reducing the load or turning off the air conditioner will also increase fuel efficiency.

Gas up your vehicles with 10% Ethanol blended gasoline.

Check your tire pressure monthly and save up to $50 and 0.12 tonnes of GHGs a year.

Manitoba Hydro

4. **Increase heating and cooling efficiency** – Select energy efficient heating and cooling systems. Maintain the building envelope. Optimize natural heating and cooling. Lower building temperatures and use programmable thermostats. Identify opportunities for heat recovery.

Check out Manitoba Hydro's Power Smart for business incentives and saving opportunities.

For every 1°C you lower the thermostat you save 2% on your heating bill.

5. **The three R's** – Recycle, Reuse, Reduce.

Make recyicling easy. Increase accessibility. Research alternative products that minimize waste.

Every tonne of paper you recycle means two tonnes fewer GHGs.

www.climatechangeconnection.org

6. **Compost** – Composting is an easy way to reduce waste that normally goes to the landfill.

Develop a composting strategy through policies, training, and accessibility.

Composting reduces Methane emissions and waste disposal costs.

Manitoba Hydro

7. **Reduce electricity use** – Adopt an energy strategy. Begin by assessing how much electricity your business uses and where your greatest savings could come from.

Turn off lights or use motion sensors. Switch to more energy efficient lighting. Buy energy efficient equipment. *Check out Manitoba Hydro's Power Smart Program for incentives and saving opportunities.*

Save $10 a year by converting just one exit sign to LED lights.

8. **Eliminate the paper trail** – Evaluate the amount of paper your business uses and identify ways to eliminate or reduce paper use.

Photocopy or print on both sides of the page. Use post-consumer recycled paper stock. Use scrap paper for note pads.

Paper products account for more than 1/3 of all Canada's waste and only 1/4 of that is recycled. Reduce your use by 5% and save over $50 a year.

9. **Green your purchasing partners** – Develop a climate friendly purchasing policy. Develop partnerships with businesses that have the same green principles.

Choose products that have minimal packaging, are non-toxic, are recyclable or preferably reusable, are locally produced and made from recyclcled materials.

When buying something, we tend to look at the quality and price of an item. However, what we need to consider is the total cost – its life cost and the cost to the environment

10. **Engage employees** - Strong employee commitment, awareness, and participation are essential to any efforts to reduce GHG emissions.

Educate employees. Appoint climate champions. Provide incentives. Make GHG reduction fun.

Challenge employees to identify GHG reduction opportunities in your business. You will be surprised with their creativity and the potential $ savings.

To learn about how to develop a Climate Change Action Plan
and save more money while reducing greenhouse gases check out our new business guide
"*The Bottom Line on Climate Change: A Manitoba Business Guide.*"
http://www.climatechangeconnection.org/pages/publications.html

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About this guide

Small businesses are vital to Manitoba's economy. More than 90% of businesses in Manitoba have fewer than 90 employees, and make up over 50% of employment in our province.

Understanding how climate change will affect the bottom line of these valuable operations is vital to the continued success of small businesses in Manitoba.

Business leaders at the 2000 World Economic Forum voted global climate change as the most pressing issue facing the world's business community.

The purpose of this guide is to help small- and medium-sized business owners understand the business impacts of climate change. The guide provides resources that will help find beneficial and profitable solutions, and diversify markets and products.

Climate change puts pressure on your business!

Business Drivers for GHG Reduction:

- Reduce costs
- Increase quality of products and services
- Diversify products and services (new GHG opportunities)
- Stimulate innovation
- Increase employee motivation
- Personal commitment/responsibility to community
- Manage risk and liability
- Maintain or increase market share

- Customer or consumer demands for "greener" products
- Profitability and access to capital
- Shareholders demanding accountability and transparency
- Competitive advantage by setting the trend or following the market leader
- Government regulations

What is a SME?

Small and medium-size enterprises (SME) are any businesses with less than 500 employees.

A small business is one with less than 50 employees.[1]

They may include:

- Hotels, motels, bed & breakfasts
- Grocery and convenience stores
- Retail stores
- Bakeries
- Manufacturers
- Garages and mechanics
- Law, insurance, and other offices
- Florists
- Restaurants
- Hairdressers

You will find this guide useful if:

- Your company does not have an environmental specialist on staff
- As an owner, you wear many hats and have limited time
- Your daily concerns not environmental
- You are unaware of the bottom-line business benefits of taking action on climate change

Why your business should take action on climate change

There are a number of good reasons to get involved:

- to reduce cost and increase revenue
- to be proactive because you believe that government regulations may soon require you to change business practices
- to reduce the risks associated with higher energy costs and extreme weather events that affect the supply of goods or customers
- to respond to investor or customer concerns to be more "climate friendly"
- to be more socially responsible
- to follow the initiative of industry leaders who have created and released strategies to reduce greenhouse gas emissions from their operations

Key Business Benefits of Responding to Climate Change:

1. Reduced costs and higher productivity-improved energy and material efficiencies
2. New revenues-new climate-friendly technologies, products and services
3. Enhanced brand image
4. Improved employee morale and loyalty
5. Reduced liability and risk

Source: Cool Business Guide produced in 2001 by the Pembina Institute

[1] Canadian Federation of Independent Business. Manitoba Small Business Primer. http://www.cfib.ca/research/reports/mn2000.pdf

Section 1

This section will provide you with the basic information you need to understand climate change.

Section 2

This section outlines the easiest ways to save money and reduce your greenhouse gas emissions today.

Section 3

The third section discusses the climate change costs that affect your bottom-line as a small business. In section three you will learn how to:

- reduce labour and building costs
- change your purchasing and transportation practices to reduce greenhouse gas emissions without
  increasing your costs
- promote the actions your business is taking on climate change

Section 4

Section four lays out a basic climate change plan and provides you with a number of resources so you don't have to reinvent the wheel.

Section 5

Section five highlights specific resources for different types of small businesses.

1 Climate Change is Your Business

Business Case for Action on Climate Change

You likely did not go into business to prevent climate change. Yet your motivation for going into business may be more complex than simply to make money -- but you do need to make money if you want to stay in business! That is why entrepreneurs see environmental problems as business opportunities[2].

A common myth about taking action on climate change is that it will cost your business. However, the cost of inaction now outweigh those of early action, and the sooner positive action is taken, the greater the economic benefits to your business[3].

Once you understand how climate change will affect your business you will be in a better position to minimize the risks and maximize the opportunities.

There are three main categories of risk:

1. Natural Capital- this risk threatens the natural resources or capital that many businesses rely on for raw materials (forests, fisheries, agriculture) or indirectly (real estate, tourism, retail, restaurant). For example, even if your business does not depend directly on natural capital you still need to ask about your suppliers and customers.

2. Government Policies- There is a risk that policies will influence the market to favour less greenhouse gas-intensive businesses, products and services.

3. Customer and Public Pressure- Whether you sell business-to-business or directly to consumers, your customers will increasingly prefer climate-friendly products.

There are two ways that your business will be able to profit from getting involved:

1. By focusing on internal efficiency you can improve energy efficiencies and reduce GHG emissions from business operation. These activities will cut costs and save money.

2. By exploring new revenue opportunities you may be able to fill a need for energy efficient products and services, alternative fuel sources, or prepare your company to take advantage of the growing GHG emissions reduction market.

[2] Alliance for Environmental Innovation-Environmental Defense. (1999). Catalyzing Environmental Results: Lessons in advocacy organization-business partnerships. Retrieved September 1, 2005 from http://www.environmentaldefense.org/documents/563_kaplan.pdf

[3] New Zealand Business Council for Sustainable Development. Business Opportunities and Global Climate Change. Downloaded from www.nzbsd.org.nz/climatechange/NZBCSD_climate_change_business_opportunties.pdf

By addressing climate change earlier rather than later you can maximize your opportunities while minimizing your risks. As part of an overall business strategy, climate change action represents intelligent entrepreneurship, responsible risk management and good corporate citizenship.

Your initiatives will only sustain themselves and grow within a company when they deliver specific, measurable business benefits, particularly with regard to a company's core business functions.

Climate Change 101

Economics has emerged as the key driver for companies that are taking action on climate change[4]. The bottom line is where businesses start and end! To understand how your bottom line will be affected by climate change, it is useful to have a basic understanding of the issue.

Key terms:

Climate change: the long-term shifts in climate. A region's climate results from an interaction of elements, including temperature, precipitation, winds, and other factors. These interactions are complex and vary from region to region. Some regions are going to become warmer and drier, while others become wetter and cooler. Extremes of temperature and moisture seem to be more prevalent now, leading to more severe weather events.

Global warming: not to be confused with climate change, global warming refers to a sustained increase in the global average surface temperature.

Greenhouse Effect: a natural phenomenon that helps regulate the earth's temperature. The sun's energy passes through the atmosphere and heats the earth. Some of this heat is trapped in the atmosphere by greenhouse gases rather than escaping back into space.

The main *greenhouse gases* are:

water vapour (H_2O)
carbon dioxide (CO_2)
methane (CH_4)
nitrous oxide (N_2O)
ozone (O_3)
halocarbons (CFCs, HFCs)

[4] Noble, D. (2001). Cool Business Guide: Lower costs, higher productivity and climate change solutions. Pembina Institute: Ottawa, ON, p. 20.

Enhanced Greenhouse Effect[5]: Naturally occurring greenhouse gases keep the Earth warm enough to support life. Without it the average global surface temperature would be -18°C instead of the current +15°C. However extra greenhouse gases cause more heat to be trapped, driving up th average global temperature. This is the Enhanced Greenhouse Effect. It has been used interchangeably with the Greenhouse Effect.

Scientific studies show that a variety of human activities release greenhouse gases. These include the burning of fossil fuels for producing electrical energy, heating, and transportation. By increasing the concentration of greenhouse gases in the atmosphere, human activities are disrupting the natural Greenhouse Effect.

Fossil fuels: a collective term for coal, petroleum and natural gas. Fossil fuels are made of fossilized, plant and animal remains. These remains were buried in sediments millions of years ago, and over time, have been converted to their current carbon-rich state. Fossil fuels can be extracted and burned to release stored energy.

Since the beginning of the Industrial Revolution, concentrations of carbon dioxide have increased by 31 per cent, and atmospheric methane by 151 per cent[6]

Organic Waste and your SME

Methane is produced naturally when vegetation is digested or rotted in the absence of oxygen. Large amounts of methane are released by garbage dumps and livestock operations. Methane is significant because it is 21 times more heat-trapping than carbon dioxide. One way to reduce methane emissions is by composting.

Waste is often a by-product of success–part of the cost of doing business. But now your dollar needs to stretch farther than ever before...are you noticing:

- Rising costs to haul your on-site waste?
- Frequent waste hauler lifts to manage the odour from the organic portion of your waste?
- More customers asking what 'green' practices your business follows?

Join the growing number of businesses who manage their waste organics through composting. The flexible, scaleable process can be used to compost materials on-site–or off-site by taking advantage of centralized composting services. Either way, you send much less to the landfill, spend less on your waste hauler, and promote your enviro-conscious status to your customers, your employees, and your industry.

For free information on getting started,
call Manitoba's Compost InfoLineToll-Free at
1-866-394-8880.

[5] Government of Canada, Climate Change website http://www.climatechange.gc.ca/english/climate_change/greenhouse.asp

[6] Natural Resources Canada, Climate Change website http://climatechange.nrcan.gc.ca

The Kyoto Protocol and SMEs in Manitoba

In February 2005 the Kyoto Protocol became international law, signaling the first concerted step towards a global commitment addressing climate change. Under this agreement, thirty industrialized countries, including Canada, are legally bound to reduce emissions by an average of 5.2% from their 1990 levels by 2012.

To date, there have been no clear policies or programs that outline how small businesses in Manitoba will help reduce greenhouse gases that cause climate change.

Canada

In April 2005, the Government of Canada released their plan for meeting Kyoto commitments. Actions for SMEs do not play a prominent role in the plan. This does not mean that SMEs will not feel the affects of the policies and programs that will evolve from the government's plan. They clearly state that "as the world moves to address the challenge of climate change, those economies and companies that build environmental considerations into their decisions will ultimately have a competitive advantage."[7]

Manitoba

In June 2002, the Province of Manitoba released their first Climate Change Action Plan. This plan outlines Premier Doer's commitment to meet or exceed the national emission reduction targets required under the Kyoto Protocol.[8] Manitoba's plan is geared towards increasing research and development in climate change technologies and creating opportunities for businesses in Manitoba.

In March 2004, the Province reinforced their commitment to play their part in the climate change solution when they signed a Memorandum of Understanding (MOU) with the Government of Canada. This MOU outlines among other objectives, a commitment to "capitalize on opportunities for innovation and cost-effective economic development and job creation related to climate change."[9]

Your Knight in Shining Armour

As a small business owner you may not have time to research environmental issues that are affecting your business. Corporate Knights, the Canadian magazine for responsible business, does the research for you and provides an analysis of the environmental issues that affect your business. Visit at www.corporateknights.ca

[7] Government of Canada. (2005). Moving Forward on Climate Change-A Plan for Honouring our Kyoto Commitment. Download from www.climatechange.gc.ca

[8] Province of Manitoba.. (2002). Kyoto and Beyond: A Plan of Action to Meet and Exceed Manitoba's Kyoto Targets. Download from http://www.gov.mb.ca/est/climatechange/pdfs/final-mccap-sep-16-02.pdf

[9] Memorandum of Understanding for Cooperation on Addressing Climate Change (Manitoba). Downloaded from http://www.climatechange.gc.ca/english/publications/mou_manitoba/

Getting to the point:

- Climate change and global warming are often used interchangeably but they have slightly different definitions.
- The greenhouse effect is a natural process that regulates the earth's temperature.
- Human actions, such as the combustion of fossil fuels, increase greenhouse gas concentrations in the atmosphere.
- Increased concentrations of greenhouse gases causes more heat to be trapped in the atmosphere, causing alterations in the Earth's climate, resulting in regional weather changes such as more extreme weather events.
- The Kyoto Protocol is international law. Canada is subject to this law.
- National policy will trickle down to provincial and municipal governments and to all sizes and types of business.
- Even though your business is small, you are producing greenhouse gases. In the future, SME greenhouse gas emissions will likely be regulated in much the same way as large industrial emitters.

2 Low cost-no cost alternatives to reducing GHGs

Wondering how much money your business can save while reducing GHG emissions? Use the tips below to find the easiest, no cost or low cost cli ate change actions that will make the biggest impact on your bottom line.

For many businesses, a 20% cut in energy costs is equivalent to a 5% increase in sales.

Action	Cost	Savings
During the winter, set your thermostat between 18°C and 20°C during business hours and between 15.5°C and 18°C during non-business hours.	FREE	3% of the heating bill for every 1°C the temperature is lowered per day
During the summer, set your thermostat between 25.5°C and 26.5°C during business hours and above 26.5°C during non-business hours.	FREE	4% of the cooling bill for every 1°C the temperature is raised per day
Reduce the temperature on your hot water tank by 5°C to 6°C	FREE	3% to 5% reduction of water heating energy consumption for every 5.6°C.
Choose a high efficiency air conditioning system	Cost depends on system purchased.	$110 to $135/yr
Install programmable thermostats or timers to adjust temperature based on your hours of operation.	Cost depends on number and type of thermostat/timer purchased.	1% of the heating bill for every 1°C the temperature is lowered per 8 hours. 1.3% of the cooling bill for every 1°C the temperature is raised per 8 hours.
Use a bicycle courier service or ask your regular courier if they have any hybrid vehicles	Competitive rates with standard courier services	
Seek advice from all of the organizations listed in this guide	FREE	Priceless

[10] The Carbon Trust. www.thecarbontrust.co.uk/energy

In Manitoba, hydro electric power means that electricity production does not generate greenhouse gas emissions like the natural gas that heats our homes or the fuel that powers our cars.

However, you can still realize bottom-line benefits by reducing your energy consumption. In some cases, the benefits go beyond saving money on your electricity bill. For example, compact fluorescent light bulbs can last up to 10 times longer than regular incandescent light bulbs reducing the labour and hassle of changing light bulbs.

Action	Cost*	Savings
Turn off lights and office equipment evenings and weekends and set energy saving features on all your office equipment to put them into sleep mode when not in use.	FREE	$10/yr/computer $2/yr/printer $.65/yr/copier $1/yr/task light
Replace one incandescent exit sign with a light emitting diode (LED) exit sign.	$45	$10/yr/sign
Install Intelligent Parking Lot Controllers to cycle car plugs on and off.	Cost depends on system purchased.	Up to 50% reduction of energy consumption per year.
Install light occupancy sensors in one room	$60-$100	$23-$62/year
Replace one standard incandescent bulb with a Compact Fluorescent Light bulb	$12-$22	$10/year

* Check out Manitoba Hydro's PowerSmart for Business programs at http://www.hydro.mb.ca/saving_with_ps/psmart_business.shtml or by calling PH: (204) 474-3676 or call toll-free 1 888 MB HYDRO

3 The costs of doing business doesn't have to cost the climate

Climate change has the potential to affect all of the major costs that your business incurs. The Manitoba Business Service Centre lists five of the most common costs to all small businesses.

They are:

1. Labour
2. Building lease/mortgage and maintenance
3. Purchasing inventory or supplies
4. Advertising and promotion
5. Shipping or transportation

This section makes the connection between the costs of running a small business and the benefits of taking action – directly and indirectly -- to reduce greenhouse gas emissions.

Cost #1 - Labour/Wages

Taking action on climate change can favourably affect your labour costs. There are more and more studies that make the link between environmental business values and practices, and employee morale and productivity.

The physical environment has an effect on worker performance. Employing green building design principles when retrofiting workspace can make a big difference to your bottom-line. For example, when Smith Carter, an architecture, engineering and design firm developed plans to build a new office in Winnipeg they decided to integrate climate change with organizational change. They challenged themselves to create the kind of space that would enhance their brand image, increase their intellectual capital, and make their organization more effective all while reducing energy costs and GHG emissions.

The Smith Carter firm considers their new building a success. In their first year in their new space they have:

- reduced their energy consumption by 55%
- saved $43,000 in energy costs
- increased employee productivity by 8%
- reduced greenhouse gas emissions by 222 tonnes of CO_2

By incorporating climate change and sustainability into business decisions about their new building Smith Carter Architects and Engineers realized positive effects to their bottom-line.[11]

[11] Rick Linley, Chief Operating Officer of Smith Carter Architects and Engineers. Presentation November 4, 2005. Winnipeg, MB.

Case Study:

Bikers Benefit from Energy Efficiency

Tom Buzas, Manager of Rockville Harley-Davidson, of Rockville, Maryland, has taught his 40 employees the value of energy efficiency. By replacing old windows, installing window films, and purchasing a high-efficiency air conditioner, Buzas has decreased drafts and temperature fluctuations in his 15,000 square foot facility. Additional upgrades such as installing automatic set-point thermostats, replacing traditional T-12 fluorescent lamps with metal halide lighting and installing an energy management system (EMS) not only saved money–$630 per year–but increased the comfort of the building as well. Thanks to these upgrades, Buzas saves about 9,400 k Wh of electricity, and over 100 therms of natural gas, which reduce his CO2 emissions by nearly 21,000 pounds annually. "Now that the indoor air quality is better, and the temperature is more constant, the store employees are happier and healthier."[12]

Increasing employee productivity by just 1% through workplace improvements can generate enough additional profits to cover the annual energy costs for your business.

Employee Morale and Loyalty

There are many programs that can improve employee morale and loyalty. Teleworking is just one example that has proven to increase employee productivity and job satisfaction while reducing the GHG emissions that result from commuting to meetings and the office.

Telework, also known as telecommuting, is a flexible work arrangement whereby employees have approval to carry on some or all of their work duties from a remote site, e.g. a home office or satellite site.

Some of the benefits of telework for your business and your employee include[13]:

- Reducing costs because less office space is required to house employees
- Reducing the time employees spend commuting. For example, in a recent Public Works and Government Services Canada study, each staff member was spending an average of 36 hours/ month commuting!
- Reducing absenteeism and increasing employee retention
- Reducing GHG emissions associated with commuting to work and meetings

TIP!

Commuting by car is the single largest source of GHG emissions in Manitoba.[14] A fun way to encourage your employees to choose alternatives to commuting by car is to join the Commuter Challenge.[15] Each year, during the first week of June, Manitobans are encourage to walk, roller-blade, cycle, car pool or take the bus to work.

[12] EPA, 2002 ENERGY STAR for Small Business and Congregations, www.epa.gov/smallbiz/archive/winners2002.html

[13] Canadian Telework Registry has a wealth of information to assist you in making a transition to telework http://www.ghgregistries.ca/telework/index_e.cfm

[14] Manitoba Climate Change Task Force. (September 2001). Manitoba and Climate Change: Investing in our future..Winnipeg, MB, p. 4.

[15] Resource Conservation Manitoba. http://www.resourceconservation.mb.ca/gci/gci.html

Are positions in your business appropriate for teleworking? Take into consideration the following (adapted from Manitoba Hydro):

- Remember -- telecommuting is a co-operative arrangement between employee and supervisors, jointly and voluntarily agreed upon.

- The position has clearly defined tasks, measurable work activities, and requires minimal special equipment.

- Performance is measured by output, and past and present levels of performance support a telecommuting arrangement, for example:

    - The teleworker possesses good communication skills and have a demonstrated ability to solve problems and make decisions independently
    - The teleworker is highly motivated, responsible and self-disciplined
    - The teleworker has sufficient knowledge of your organization to be able to work offsite
    - The terms and conditions of employment with the organization still apply.

The Office of Energy Efficiency

Energy Innovators has released Saving Money Through Energy Efficiency: A guide to implementing an energy efficiency awareness program.
http://oee.nrcan.gc.ca/publications/infosource/pub/ici/eii/pdf/eii-awareness.pdf

Whatever action you choose to take on climate change you will want to think about the lessons that the Pembina Institute learned when they instituted a climate change program for the workplace.[16] These lessons could apply to any workplace initiative:

1. To achieve success in an employee challenge to reduce GHGs, a team of employees from different areas of the organization should be involved. A team approach (no matter how small the team!) allows sharing ideas and responsibilities, and for tasks to be distributed -- increasing the chances of creating a successful program.

2. Senior management must be committed to the challenge to ensure that appropriate resources are allocated to the initiative, and it is promoted to all levels of the organization. If you are senior management, you can provide a leadership role when it comes to taking action on climate change.

3. Organizations should encourage early employee participation, as this increases the likelihood that individuals will get involved and take part in additional events. Early participation can be encouraged using incentives such as early bird prize draws and deadlines.

4. Once employees are engaged in the challenge, organizations should design and deliver a longer-term campaign to maintain enthusiasm over time. Even if you work in a very small office, sharing information about the success of your program internally, as well as with other small businesses, is important. You have bragging rights!

Meeting and Conferences

Meetings can be made climate-friendly by following these tips[17]:

1. Put it in writing. Establish a 'green' statement or policy for the meeting, and communicate it widely, including with suppliers, delegates and speakers.

2. Use paperless technology. Use new media and electronic technology to cut down your paper use. Create a conference web site, offer electronic registration and confirmation, and advertise using the web and/or email.

3. Meet close. Reduce distances traveled by speakers and delegates. Choose a host city that is close to as many delegates as possible. Within the city, choose a venue and hotel that are close to the airport and within walking distance of each other.

4. Recycle! Ask your hotel and meeting venue to provide visible and accessible recycling services for paper, metal, plastic and glass.

5. Bulk up. Have your food & beverage service provider use bulk dispensers for sugar, salt, pepper, cream and other condiments. No waste baskets full of tiny wrappers!

6. Lighten your stay. Choose a hotel that offers a linen reuse program and bulk dispensers for shampoos and soaps in guest suites.

7. Eat green. Include vegetarian selections, and have meals planned using local, seasonal produce.

[16] Pembina Institute One Tonne Corporate Challenge: Overview, evaluation and lessons learnedÅh http://www.pembina.org/pdf/publications/OTCC_Report-Public_June_2_05-cover.pdf

[17] BlueGreen Meetings http://www.bluegreenmeetings.org/index.htm

8. Close the loop. Have all printed materials published on recycled paper, using vegetable-based inks, on both sides of the page.

9. Save energy. Coordinate with the meeting venue to ensure that lights and air conditioning will be turned off when rooms are not in use.

10. Spread the word! Tell participants, speakers and the media about your green meeting practices.

Consult these resources for green meeting solutions:

1. *Green Meeting Resources*
   The National Recycling Coalition's Green Meeting Policy
   http://www.nrc-recycle.org/resources/library/nrcgreenmtgsguide.pdf

2. *BlueGreen Meetings*
   http://www.bluegreenmeetings.org/index.htm

3. *It's Easy Being Green:* A Guide to planning environmentally aware meetings and events
   http://www.resourcesaver.org/file/toolmanager/O16F2392.pdf

4. *Environment Canada's Green Meeting Guide*
   http://www.ns.ec.gc.ca/greenman/manual/greenpdf.pdf

TIP!

Make your event Carbon Neutral. Calculate the amount of carbon generated at your event and then plant the number of trees required to offset this amount by planting trees.[18]

[18] Tree Canada Foundation can help make your event Carbon Neutral
http://www.treecanada.ca/programs/climatechange/co2-neutral-events.htm

Cost #2 - Transportation: Shipping, delivery, commuting

Driving less is an effective step to reduce your business's GHG emissions. It saves money and improves air quality. In Manitoba, transportation accounts for one-third of GHG emissions.[19]

Rising fuel costs are cutting into the bottom-line for many businesses. You may not feel this cost directly, but your suppliers may raise their prices, or as in the case of airlines and delivery and shipping companies, they may be adding fuel surcharges.

Think about your business's transportation emissions:

- How do you and your employees commute to work?
- Do you frequently travel by car or air for business purposes?
- Do you ship products by truck to your customers?
- Do your suppliers deliver goods and services to you by truck or car?
- Do you frequently use a courier service for small packages?

If you answered yes to any of these questions you have an opportunity to reduce GHG emissions and save money. You don't have to make drastic changes to see a big difference.

Try one of these alternatives:

- Implement a Telework program for your employees so that they can work from home on certain days.
- Encourage climate-friendlier commuting in your workplace by being flexible with start and end times, making it easier for carpooling.
- Install a bike rack in a safe location and provide showers and a change room, or sign up for Winnipeg Transit's Ecopass program.
- Use conference calls to reduce car and air travel to meetings.
- Join the Office of Energy Efficiency FleetSmart program to learn about how you can reduce your fleet's operating costs by conserving energy.[20]
- Ask your shipping company if they have taken the SmartDriver training program offered by the Office of Energy Efficiency.[21]
- Choose a courier company that uses people power to deliver packages by bicycle or choose one that has invested in hybrid-vehicles.

Does your courier company use alternative transportation?

- Purolater has started using hybrid electric vehicles[22]
- Natural Cycle relies on people power to deliver your packages in the City of Winnipeg.[23]

[19] Manitoba Energy, Science & Technology, Climate Change Branch http://www.gov.mb.ca/est/climatechange/ghg/index.html

[20] Office of Energy Efficiency, FleetSmart program http://oee.nrcan.gc.ca/transportation/fleetsmart.cfm

[21] Office of Energy Efficiency, SmartDriver training http://oee.nrcan.gc.ca/transportation/business/smartdriver/index.cfm?attr=16

[22] http://www.purolator.com/media/news/may_27_05.html

[23] Natural Cycle http://www.naturalcycle.ca/

The top three resources to help you reduce the costs associated with transportation:

1. *Natural Resources Canada* - Office of Energy Efficiency-Business Transportation
   http://oee.nrcan.gc.ca/transportation/business/index.cfm?attr=0
   This website contains information you need about programs and tools to reduce the climate change impact associated with business transportation. You can join the Fleet Smart program, learn about the Smart Driver program, and sign-up for a fuel efficiency workshop.

2. *Resource Conservation Manitoba* (RCM) - Green Commuting Program
   http://www.resourceconservation.mb.ca/gci/gci.html
   According to a 2004 City of Winnipeg study, 73% of respondents regularly drove their car to work. The Green Commute Guide available on the RCM website can help you promote transportation alternatives in your workplace. The benefits of green commuting include wellness of employees who are more active, reduced costs for employees and employers, and greenhouse gas reductions.

3. *Winnipeg Transit* - Ecopass
   http://winnipegtransit.com/main/ecopass.jsp
   The EcoPass is a discounted monthly bus pass offered to employees at participating companies. Not only does taking the bus reduce greenhouse gas emissions associated with commuting to work, it can also save employers and employees money. Employers can save money by reducing the costs associated with providing onsite, subsidized or free parking to employees. Employees can save money on auto insurance (by switching from business to pleasure), gas, vehicle maintenance, and parking.

TIP!

Idling a vehicle for 10 minutes a day uses an average of 100 litres of gas per year. At 95 cents a litre, a driver could save $95 a year in gasoline costs just by turning off the engine. Not only does idling waste money, it produces GHGs and contributes to air pollution.

Cost #3 - Location, Location, Location!

It takes a lot of energy to run a business. The energy required for heating, cooling, and equipment cost you money and creates GHG emissions. In 1999, commercial heating generated about 1470 kilotonnes of GHG emissions[26] representing 7.4% of Manitoba's total GHG emissions.[27]

Maintaining a comfortable workplace can be expensive. Whether you rent or own your building, investing in your space can pay off in the long run. Maintaining your building's envelope is a critical step in reducing your GHG emissions.

What is a Building Envelope?

The building envelope includes everything that separates the interior of a building from the outdoor environment, including the windows, walls, foundation, basement slab, ceiling, roof, and insulation.[28]

What do you do if you don't own your own building?

When a business is located in a rental property, taking climate change action becomes a joint initiative of the business owner and the property owner or property management company. It is not always clear who is responsible for taking action, who will pay for up-front costs of retrofits or changes, and who will reap the benefits or savings. Cooperation and communication among the property owner and business owner is absolutely necessary!

- Contact your landlord to find out if they are currently taking any action on climate change, if they have conducted a GHG inventory, or if they have any plans to do so;
- If you are in a multi-unit building, work with other tenants to see if they share your concerns or interest in creating a climate-friendly work environment;
- Be prepared to provide your landlord with ideas about how they can save money and tips about taking action;
- If you are signing a new lease or renewing an existing one, take the opportunity to discuss your desire to reduce GHG emissions and save money on heating, energy, waste hauling, and other costs. Negotiate a rider in your lease so that it outlines who is responsible for the costs of retrofits and who will share in the financial savings;
- Get any agreement that you make about climate change actions in writing[29].

[26] Manitoba Energy, Science & Technology, Climate Change Branch
http://www.gov.mb.ca/est/climatechange/ghg/heating.html

[27] Manitoba Energy, Science & Technology, Climate Change Branch
http://www.gov.mb.ca/est/climatechange/ghg/index.html

[28] US Department of Energy-Energy Efficiency and Renewable Energy
http://www.eere.energy.gov/EE/buildings_envelope.html

[29] Eco-efficiency Centre. This organization is a project of Dalhousie University in Nova Scotia. They have a series of fact sheets and information for small businesses including, Tenant-Landlord Relationships. This fact sheet can be downloaded from
http://eco-efficiency.management.dal.ca/businessfactsheets/tennant_landlord_relations_fs.pdf

Considering Constructing a New Rental Building or Moving to a New Rental Property?[31]

Think "green building"! Green buildings offer a variety of environmental and economic benefits to the developer and the tenants:

- Green design can decrease construction costs.
- Green buildings are efficient and save around 70-90% of traditional energy use.
- Green projects usually sell or lease faster and retain tenants more effectively, and the resulting gains in occupancies, rents, and residuals all enhance financial returns. Green buildings have greater visual, thermal and acoustic comfort.
- This helps in labour productivity, retail sales and manufacturing quality and output. Better indoor air quality improves health and productivity and reduces liability.

TIP!

Windows account for almost 25% of a building's energy loss. You don't have to install new windows to reduce your GHG emissions and save money. An insulating plastic sheet secured over the interior side of the window can improve its efficiency. Shades, drapes, and interior shutters help reduce heat loss at night and can block sunlight during the day. Don't underestimate the impact that closing your drapes or shades can have on cutting air-conditioning and heating bills.[30]

Case Study:

Hair Salon in Hot Water!

To reduce costs and greenhouse gas emissions, World Hair Salon in Toronto installed a solar hot water heating system. They became Canada's first solar-powered hair and beauty salon. This has reduced their natural gas consumption by more than 30%, saving over $600 each year.[32]

[30] Clean Air Foundation, Cool Shops Program, Energy Saving Tips
http://www.cleanairfoundation.org/cool_shops/html/tips4.asp

[31] Eco-efficiency Centre. This organization is a project of Dalhousie University in Nova Scotia. They have a series of fact sheets and information for small businesses including, Tenant-Landlord Relationships. This fact sheet can be downloaded from
http://eco-efficiency.management.dal.ca/businessfactsheets/tennant_landlord_relations_fs.pdf

[32] Clean Air Foundation, Cool Shops Program
www.coolshops.ca

The top three resources to help you reduce the costs associated with your building:

1. *Manitoba Chapter of the Canada Green Building Council*
   http://www.cagbc.org/chapters/manitoba.php
   The Manitoba Chapter exists to promote green building in Manitoba and to connect the province to the activities of the Canada Green Building Council and other Chapters across the country.

2. *Manitoba Hydro Power Smart for Business*
   http://www.hydro.mb.ca/business_customers/eco_efficient_solutions.shtml
   Manitoba Hydro offers a number of programs for business in Manitoba who are interested in reducing their energy consumption, saving money and, reducing GHG emissions. You can talk to an energy expert for advice, track your energy consumption using their EnerTrend software, and enhance your competitiveness by following their Power Smart Eco-Efficiency Solutions Program for Manitoba Industry.

3. *Leadership in Energy and Environmental Design (LEED)*
   http://www.usgbc.org/LEED/
   LEED Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. In Canada the LEED program is administered by the Canadian Green Building Council.
   http://www.cagbc.org/

Building Energy Management Manitoba

http://www.bemm.ca/bemm.aspx

Building Energy Management Manitoba (BEMM), formerly called Manitoba Energy Management Task Force (MEMTF), is a Canadian, volunteer based, non-profit network, dedicated to promoting energy efficiency and management in the commercial, industrial, institutional and multi-residential building sectors.

TIP!

Put on a sweater instead of turning up the heat. If you share office space it is often difficult for everyone to be comfortable, but the easiest way to save money and reduce GHG emissions is to reduce the thermostat setting by 1°C in the winter and increase by 1°C in the summer. Purchase and install a programmable thermostat so that the temperature is automatically adjusted on evenings and weekends to maximize your energy savings.

Cost #4 - Advertising and Promotion

If you are taking action to reduce your company's GHG emissions don't keep it a secret! Learning from your peers is a great way to find out how other businesses just like yours have taken action on climate change while improving their bottom line.

Taking action to protect the climate can enhance your brand-image. Get noticed! If you would like to be recognized for your efforts to reduce GHGs you can get noticed by applying for one of these awards.

Energy Innovators Awards
http://oee.nrcan.gc.ca/commercial/networking/innovator-awards.cfm?attr=20

ENERGY STAR Market Transformation Awards
http://oee.nrcan.gc.ca/energystar/english/participants/registration/index.cfm

Canadian Centre for Pollution Prevention
www.c2p2online.com/CPPR

TIP!

The Canadian Centre for Pollution Prevention Awards has a new category for "Micro-Businesses" with only one to nine employees. So even the smallest business can be recognized for their leadership in pollution prevention practices!

Is your business a Cool Shop?

Cool Shops is a program of the Clean Air Foundation in Toronto. When Ontario companies apply to be a Cool Shop program staff conduct an energy audit to help identify the best energy-savings options for that business. Based on the audit findings, they recommend a number of steps that the business can take to be more energy-efficient.

If the business chooses to take part, they qualify as an official Cool Shops participant. The program provides the materials to market that business as one that is taking steps to improve environmental health. They provide publicity door signs, in-store promotional materials to attract more customers, nominations for special business awards and advertisements in local media. They also write media releases and articles for community newspapers and they feature the business on their Web site along with other Cool Shops participants.

Learn more about Cool Shops at www.coolshops.ca

Cost #5 - Purchasing - Inventory, Assets

When purchasing products, consider more than the upfront costs. Consider the longer term energy savings, the environmental and social benefits, and the potential for reduced waste disposal fees.

Green procurement is the purchasing of products and services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

Characteristics of a green product or service are:

- reusable and contain reusable parts
- recyclable and contain recycled materials (e.g. recycled paper, reconditioned laser printer cartridges)
- second-hand or used material
- economical to repair and have a long service life
- packaged in returnable or reusable shipping containers or have a minimum amount of packaging
- energy efficient

TIP!

If you are looking for a green product or service get your hands on a copy Business and the Environment Growing Together by calling the Manitoba Environmental Industries Association (MEIA) at 783-7090 or by emailing them at admin@meia.mb.ca.

Case Study:

Hothouse Flowers

Bryan Garrett Florists got creative to reduce energy use. T12 lights were switched to more efficient T8s, and the windows and doors were sealed tight to reduce drafts. Refrigeration exhausts a lot of heat, so fans were installed to redirect the heat to the shop during cold weather. Circulating the heat from the fridges now keeps the store warm, reducing heating energy use by 80%.[33]

TIP!

All businesses need to purchase materials. A common myth is that purchasing environmentally friendly products is more expensive than traditional products. Greener products are often available at the same price, or at a small premium to conventional products.

[33] Clean Air Foundation, Cool Shops Program www.coolshops.ca

The top three resources to help you green your purchasing habits:

1. *Green Procurement in Manitoba*
   www.gov.mb.ca/gs/psb/green.html
   The Sustainable Development Act (1998) required the establishment of Procurement Guidelines and the integration of the Guidelines into Provincial procurement manuals and procedures. These guidelines were ratified by Cabinet in December 2000 with a one year implementation period for the development of Government wide performance goals and action plans.

2. *ENERGY STAR®*
   http://oee.nrcan.gc.ca
   The internationally recognized symbol is a simple way to identify the most energy-efficient products on the market.

3. *EcoLogo* Similar to the ENERGY STAR® concept, the Ecologo labeling system will help you identify a wide range of environmentally friendly products and services. A complete listing of EcoLogo certified products is available on the Environmental Choice web site at www.environmentalchoice.com.

TIP!

The next time you upgrade any of your electronic equipment (from your water cooler to your computer systems) purchase ENERGY STAR® qualified products. The products carrying the ENERGY STAR® symbol are subject to strict technical specifications making it easy for you to know that you can save 70-75% of the energy used by conventional models.

4 Developing a Climate Change Action Plan for Your Small Business

Climate change is a business problem and an environmental problem. As such, your response to climate change should not be that different from your company's response to any other business challenge or opportunity. Although there is no 'one size fits all' plan, by following these steps you can plan a profitable response to climate change.

Potential barriers business leaders face when putting a climate change plan into action[14]. These barriers might include a lack of:

- Awareness about climate change
- Expertise about how to exploit internal efficiencies or new revenue opportunities
- Money required to make proposed changes
- Time or competing priorities for management's attention

How detailed should you make your plan?[15]

Whether you are just beginning to take action or are building on existing climate change actions, you may want to ask yourself a few questions before starting your plan:

1. What are the current business priorities of your company?
2. What trends are affecting your company and industry?
3. What are your company's environmental aspects or impacts?
4. Which of these most affect GHG emissions?
5. What programs that could address climate change are currently in place?
6. What programs, people, procedures, and tools are available to support new initiatives?

[14] Climate Change Solutions for Small to Medium-Sized Enterprises. Downloaded from www.climatechangesolutions.com

[15] Noble, D. (2001). Cool Business Guide: Lower costs, higher productivity and climate change solutions. Pembina Institute: Ottawa, ON.

Resources to help you plan:

1. *Pembina Insitute*, Cool Buiness Guide: Lower Costs, Higher Productivity, and Climate Change Solutions
   www.pembina.org
   A complete guide to help managers of small and medium sized businesses respond and profit from actions to address climate change.

2. *Five Winds International*, Steps for improving your business and the environment: Workbook and tools for SMEs
   www.fivewinds.com/uploadedfiles_shared/WorkbookForSMEs040127.pdf
   This workbook was designed to support environmental and economic performance in the business community. The aim is to help SMEs to: manage environmental issues at their facilities, reduce overall business risks, improve compliance records, enhance management systems, improve the environmental performance of their products, and improve their overall energy, environmental and economic performance.

3. *Government of Canada, Sustainability Reporting Toolkit*
   www.sustainabilityreporting.ca
   This Sustainability Reporting Toolkit was developed in response to an industry identified need to have more information and guidance on practices related to corporate sustainability reporting. The content is based on an assessment of industry needs undertaken by the Federal government and Stratos Inc. The aim of the Toolkit is to help Canadian businesses meet their reporting needs by providing a guide for what to consider when developing a sustainability report. It is targeted primarily at companies that are not currently reporting this kind of information. It is also relevant to experienced sustainability reporters by highlighting a number of best practices.

Step 1 - Obtain commitment from management

If you are your own boss, obtaining support from management will be much easier! However, even if you are management it may still take a change in your thinking in order to commit to taking action on climate change. Without this personal commitment these initiatives won't successfully compete with your other business priorities. This change needs to be reflected in three areas of business:

1. Technological choices such as equipment and building maintenance.
2. Behavioural change brought about by training and awareness.
3. Organizational activities such as including greenhouse gas emissions in decision-making and reporting[36].

[36] Diagram Source: Natural Resource Canada-Office of Energy Efficiency. Getting Started: First Steps for ommercial and Institutional Organizations
http://oee.nrcan.gc.ca/commercial/getting-started/index.cfm?attr=20

As a manager you can show your support for climate change actions by[37]:

- allocating the necessary financial and human resources
- appointing a champion to lead the climate change strategy
- sending the message that achieving your businesses climate change goals is good for employee's careers
- paying attention to the results of your plan and communicating your success widely

TIP!

Just because you are the "boss" doesn't mean you have to take the lead on all climate change actions. In fact, some of the most successful implementation efforts are led by a champion who is not the boss. The champion could be a self-selected individual or a small team of employees. Find a champion that can lead your business to success.

Step 2 - Conduct a greenhouse gas inventory

You cannot manage what you have not measured. A greenhouse gas inventory measures the amount and types of greenhouse gas that are emitted from your business operations.

Conducting an inventory will help you set an emission reduction target and prioritize the actions that will help you achieve this goal.

There are three main components of your greenhouse gas inventory[38]:

1. establishing a base line
2. projecting future greenhouse gas emissions
3. estimating the potential reductions associated with projects and activities

If the words "greenhouse gas inventory" make you cringe do not despair! Calculating GHG emissions does not require a PhD. In fact, a good understanding of your systems and accounts payable information is much more important.[39] To take actions that will reduce your greenhouse gas emissions in a way that is profitable for your business you first need to measure your emissions. Think of this activity as an audit.

TIP!

Natural Resource Canada's Office of Energy Efficiency has an Energy Management Services Directory. This directory is a national list of consultants, engineers, and other professionals that offer products and services to help you manage and measure your energy use. You can search this database at http://oee.nrcan.gc.ca/providers/index.cfm?attr=20

[37] Noble, D. (2001). Cool Business Guide: Lower costs, higher productivity and climate change solutions. Pembina Institute: Ottawa, ON

[38] Noble, D. (2001). Cool Business Guide: Lower costs, higher productivity and climate change solutions. Pembina Institute: Ottawa, ON, p. 45.

[39] New Zealand Business Council for Sustainable Development. Business Opportunities and Global Climate Change. Downloaded from www.nzbsd.org.nz/climatechange/NZBCSD_climate_change_business_opportunties.pdf

Emmissions Inventory?

Governments are compiling national inventories of greenhouse gas emissions for domestic, regional and international reporting purposes. Businesses will need to prepare for and influence future regulations, and may wish to participate in emissions trading programs. Finally, businesses that reduce emissions will want credit for doing so. For all of these reasons, corporations will start to tally their greenhouse emissions, and will develop procedures and tools to facilitate this effort.

You can often get the information you need for an audit by using your utility bills. However, a more detailed audit will reveal how the energy is being used in your building. The building envelope, lighting, domestic hot water, heating ventilation and air conditioning (HVAC) and controls are systems part of this next level of research. This detail will help identify the types of activities you can do to reduce energy consumption.

What is an Energy Audit?

An energy audit is a procedure that will identify how energy is being used in your facility and help identify practical and cost effective energy saving measures that will reduce energy use and lower operating costs. Energy audits typically produce energy savings of 10 to 15 per cent, depending on what energy savings measures have already been under taken. Almost every Commercial building in Manitoba can add some energy efficient measures and save energy dollars.

Obtain a copy of the building plans or a sketch of the layout of each floor, then walk through the facility and identify all the equipment and processes that use or cause the use of energy. Depending on your space you may need lots of time to do this properly, so book some time specifically to this task.

Make a list of the size and location of all energy using equipment such as motors, appliances and lights. Include information such as: operating hours and temperatures, condition of insulation and weather-stripping, locations of gaps around doors and windows etc. This list will also help you to create a checklist for action later in the process.

To help you identify potential energy reduction measures, ask yourself the following questions. Do the lights or equipment need to be on as long as they are? Can the operating temperature be reduced? Can smaller, more efficient equipment be installed? Can insulation be added? Can windows and doors be improved or should they be replaced? Can you "Turn it off, Turn it down or Tune it up?"

TIP!

For assistance with energy audits ask a Power Smart Energy Expert by contacting Manitoba Hydro (204) 474-3676 or 1 888 MB HYDRO (toll free) or by emailing powersmartforbusiness@hydro.mb.ca.

Resources to help you conduct your greenhouse gas inventory:

1. *Canadian Standards Association, Greenhouse Gas Inventory*
   http://www.ghgregistries.ca/index.cfm
   Tools to measure, report and manage your GHG emissions, reductions, and removals.

2. *Greenhouse Gas Protocol Initiative (GHG Protocol)*
   www.ghgprotocol.org
   An international coalition of businesses, non-governmental organizations (NGOs), government and inter-governmental organizations has developed this international GHG accounting and reporting standards to ensure that different trading schemes and other climate related initiatives adopt consistent approaches to GHG accounting.

3. *Global Reporting Initiative*
   www.globalreporting.org
   The Global Reporting Initiative (GRI) mission is to develop and share globally applicable Sustainability Reporting Guidelines. These Guidelines are for voluntary use by organizations for reporting on the economic, environmental, and social dimensions of their activities, products, and services.

Step 3 - Set emission reduction targets

Wherever possible, the plan should set measurable objectives in meeting your goals. For example, one objective might be to reduce greenhouse gas emissions by 20% each year, or to reduce overall emissions by x% by the end of 2006. Having measurable objectives can help track progress and are excellent fodder for reports!

$ Dollars to $ense Workshops

If you learn best in an interactive setting you could attend the Dollars to $ense workshops offered by Natural Resources Canada's Office of Energy Efficiency. These workshops will help you gain first hand information about topics such as how to identify and capitalize on immediate energy savings, how to assemble a money-saving energy management team, and how to take advantage of finance options. To find out when a workshop will be hosted in Manitoba visit
http://oee.nrcan.gc.ca/industrial/training-awareness/index.cfm?attr=20

TIP!

Natural Resource Canada's Office of Energy Efficiency offers an incentive to industrial companies to conduct energy audits. This incentive covers half the cost of hiring a professional energy auditor, to a maximum of $5,000.

Now that you have set your target you need to choose which emissions reduction action will give you the most bang for your buck.

Understanding Payback

Before you decide to move ahead with any climate change actions you will want to know the "payback," or how many years it will take an action to pay for itself. The amount of money you will save depends on factors such as the accuracy of your calculations, equipment performance, and energy prices. You may also want to consider measuring other benefits, such as improved building comfort, increased building value, greater employee comfort and productivity, and reduced greenhouse gas emissions.[40]

Simple Payback

If you want to install new equipment or adopt new measures, simple payback will indicate the amount of time needed for energy savings to equal the purchase price. For example, if a new energy-efficient measure costs $10,000 and will save you $1,000 in energy costs each year, the simple payback is 10 years. EnerGuide for Industry can show you simple calculations of how much you could save by using more efficient equipment.[41]

Incremental Payback

If you are installing a new type of equipment or if your old equipment is at the end of its life cycle, incremental payback will tell you the length of time needed to pay for the difference between an efficient and less efficient unit. For example, suppose that an energy-efficient replacement model costs $700 and a less efficient model costs $500. If you can save $100 a year by buying the efficient model, the incremental payback of the efficient replacement model is two years compared with buying the less efficient replacement model. Please note that some applications do not differentiate between simple and incremental payback.[42]

TIP!

Avoid cherry picking! You may be tempted to tackle energy efficiency measures one at a time, starting with those that have the shortest payback. This practice is called "cherry picking," and it will often leave you with a number of expensive measures that will become increasingly difficult to justify. By bundling multiple actions, you can often subsidize longer-payback projects with savings from shorter-payback projects.[43]

[40] Natural Resource Canada Office of Energy Efficiency
Getting Started: First Steps for Commercial and Institutional Organizations http://oee.nrcan.gc.ca/commercial/getting-started/index.cfm?attr=20

[41] IBID

[42] IBID

[43] Natural Resource Canada Office of Energy Efficiency
Getting Started: First Steps for Commercial and Institutional Organizations
http://oee.nrcan.gc.ca/commercial/getting-started/index.cfm?attr=20

Trying to figure out how to pay for your brilliant ideas? [44]

There are a number of financing techniques to help you pay for climate change actions:

- Financial Incentives offered by the Office of Energy Efficiency and Manitoba Hydro
- Internal Financing that results from the long-term savings of early actions
- Bank Loans may be an option when your savings are greater than the original loan
- Energy Management Firms plan, implement and monitor retrofit projects and receive payment that result from your future savings
- Leasing or Installment Payments on equipment

Putting your ideas into action!

If you are writing a climate change plan for your company that will increase profits, cut costs, and reduce greenhouse gas emissions it is likely that you are a climate change champion. Pick the right time to put your ideas into action by asking yourself:

- Are there times of the year when our workload is particularly high? You may not want to launch a new program if your colleagues are already swamped.
- Are there other changes going on in the workplace that compliment climate change activities? Perhaps you could "piggy back" a new program with one that is already familiar to employees.
- Does the culture of your organization fit with the ideas that you are proposing?

Don't start from scratch, use these resources to create a GHG inventory for your business:

1. Canadian Standards Association, GHG Registries
www.ghgregistries.ca
Visit their website to find tools that will help you measure, report and manage your GHG emissions, reductions, and removals.

2. Natural Resource Canada-Office of Energy Efficiency, Simple Payback Calculator
http://oee.nrcan.gc.ca/commercial/technical-info/tools/payback-lighting.cfm?attr=20
Use this software to do basic simple payback calculations on lighting and other equipment.

3. ENERGY STAR® Simple Savings Calculator
An interactive software tool, can help you compare the costs and potential savings of energy-efficient products with conventional equipment. Using local utility rates, projected savings can be calculated from reduced energy consumption and maintenance costs.

[44] Natural Resource Canada Office of Energy Efficiency
Getting Started: First Steps for Commercial and Institutional Organizations
http://oee.nrcan.gc.ca/commercial/getting-started/index.cfm?attr=20

Step 5 - Track your savings

A program will only gain and keep momentum if the business case for having it can be defended. Typically, tracking measures such as greenhouse gas emission reductions, energy savings, and financial savings are used to justify program activities. Other factors to include are employee productivity, absenteeism, and retention.

A successful plan should be able to evaluate progress and performance, and continuously improve and adjust the programs as necessary. Businesses keep track of emission reductions for several reasons, including:

- To report total emissions from operations.
- To manage and reduce emissions.
- To know if they are achieving emission reduction targets.
- To obtain credit for these reductions.
- To prepare for emissions trading or purchasing programs

Step 6 - Celebrate your success

You should be proud of your organization's efforts to reduce its energy consumption. For example, you could display the details and results to employees and other stakeholders. After all, a commitment to saving energy and protecting the environment involves convincing others to do the same.

5 Directory of Resources

The following section is a directory of industry specific resources that can save you money and reduce your greenhouse gas emissions at the same time.

Bakery

Carbon Trust
Reducing Energy Consumption Costs in Small Bakeries
http://www.thecarbontrust.co.uk/energy/pages/publication_view.asp?PubID=4486

Contractor, Homebuilder, Renovator

Natural Resource Canada, Office of Energy Efficiency
http://oee.nrcan.gc.ca/residential/business/builders-renovators-trades.cfm?attr=12

Courier Service

Natural Cycle
http://www.naturalcycle.ca/

Driving School

If you own a Driving School you may be surprised that **Natural Resource Canada's Office of Energy Efficiency** has a number of resources just for you including the Auto$mart Driver Education Kit that can help you teach your students to reduce fuel consumption and increase road safety.
http://oee.nrcan.gc.ca/transportation/business/drivers-ed-educator-intro.cfm?attr=16

Grocery and Convenience Stores

EPA ENERGY STAR tips for Small Business
http://www.energystar.gov/index.cfm?c=grocery.sb_grocery

Canmet Energy Technology Centre-Refrigeration Action Program for Buildings
http://cetc-varennes.nrcan.gc.ca/en/ref/supermar.html

Home-based Business

EPA ENERGY STAR tips for small business
http://www.energystar.gov/index.cfm?c=small_business.sb_homebusiness

Hotels and Motels

Ecopurchasing Guide for Hotels and Motels
www.greenbiz.com

Audubon International-Green Leaf Hotels Program
http://www.terrachoice.com/Home/Certification/Hotel%20Eco-Rating

Office

Working 9 to 5 on Climate Change: An office guide
http://pdf.wri.org/wri_co2guide.pdf

Green Office Guide:
A guide to greening your bottom-line through a resource efficient office environment
www.sustainableportland.org (follow the links to "Energy Division"-"Business Conservation")

Choosing Green Report Series
Find out details about choosing green office equipment and supplies such as copiers, paper, and office supplies.
www.greenbiz.com

Manufacturer and Heavy Industry

Energuide for Industry
http://oee.nrcan.gc.ca/egi/english/index.cfm?attr=20

Canadian Industry Program for Energy Conservation (CIPEC)
http://oee.nrcan.gc.ca/industrial/cipec.cfm?attr=0

Marina

Clean Marine Green Leaf Eco-rating Program
http://www.terrachoice.com/Home/Certification/Marinas%20Eco-Rating

Renters and Landlords

EPA ENERGY STAR tips for small business
http://www.energystar.gov/index.cfm?c=small_business.sb_renters

Restaurant

EPA ENERGY STAR tips for Restaurants
http://www.energystar.gov/index.cfm?c=small_business.sb_restaurants

Retailer

If you are interested in promoting and using the ENERGY STAR symbol in Canada, **Natural Resource Canada's Office of Energy Efficiency** can point you in the right direction.
http://oee.nrcan.gc.ca/energystar/english/participants/index.cfm

Greening the Small Retail Sector
www.resourcesaver.org/file/toolmanager/custom016C45F49321.pdf

Trucking Company

Natural Resource Canada's Office of Energy Efficiency Heavy Duty Vehicles Website
http://oee.nrcan.gc.ca/transportation/business/heavy.cfm?attr=16

Bison Transport
This Winnipeg based truckload carrier is the winner of the 2004 Energy Efficiency Awards for their efforts to reduce greenhouse gases, reduce fuel consumption while saving their company money.
http://oee.nrcan.gc.ca/transportation/business/documents/success-stories/highway-truck-bison.cfm?attr=16

Reimer Express Driver Training Institute has integrated the SmartDriver program into their classes.
http://oee.nrcan.gc.ca/transportation/business/documents/success-stories/highway-truck-reimer.cfm?attr=16